

DROMENA

Vesta

RGB MULTI-COLOR ANIMATION LASER SHOW SYSTEM

User's Manual



Read this manual before using. Do not attempt to open the housing or repair this device by yourself without contact us!




Unpacking:









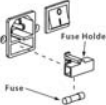

Thank you for purchasing this product. Please read user guide for safety and before using the product. Keep this manual for future reference. This product can create perfect laser programs and effects since it has passed a series of strictly tests before delivery. Please check the attachments listed on the page after opening the carton. Immediately upon receiving a fixture, carefully unpack the box. Check the box contents to ensure that all parts are present and that they are in good condition. If any part appears damaged from shipping, or if the box shows signs of mishandling, notify the shipper immediately. In addition, retain the box and all the packing material for inspection. In any event, save the carton and all packing material because, in case that you have to return the fixture to the factory, you will have to do so in its original box, with its original packing.

| | |
|-----------------|------|
| 1. Laser Light: | 1PCS |
| 2. Power Cable: | 1PCS |
| 3. User Guide: | 1PCS |

Safety Notice:

Please read the following notes carefully because they include important safety information about the installation, usage and maintenance of this product. It is important to read all these notes before starting to work with this product.

| Lasers can be hazardous and have unique safety considerations. Permanent eye injury and blindness is possible if lasers are used incorrectly. Pay close attention to each safety REMARK and WARNING statement in the user manual. Read all instructions carefully BEFORE operating this device. | |
|---|--|
|  | There are no user serviceable parts inside the light. Any reference to servicing this unit you may find from now on in this User Manual will only apply to properly C we certified technicians. Do not open the housing or attempt any repairs unless you are one of them. |
|  | Please refer to all applicable local codes and regulations for proper installation of the light. |
|  | Keep this manual for future consultation. If you sell the light to another user, make sure that they also receive this manual. |

| | |
|--|---|
|  | Avoid direct eye exposure to the light source while the fixture is on. Always disconnect the light from its power source before servicing. Always connect the light to a grounded circuit to avoid the risk of electrocution. |
|  | This product is for indoor use only! Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other fluids, or metallic objects. |
|  | Make sure there are no flammable materials close to the fixture(s) while operating. |
|  | Please prevent this light away from electrical shock |
|  | When hanging this fixture, always secure it to a fastening device using a safety cable (not provided). |
| Power 110V 240V Ground | Always make sure that you are connecting the light to the proper voltage, as per the specifications in this manual or on the product's sticker. Never connect the light to a dimmer pack. Make sure that the power cable is not cracked, crimped or damaged. Never disconnect the fixture by pulling or tugging on the power cable. |
|  | The maximum ambient temperature (Ta) is 104 F (40 C). Do not operate the fixture at a higher temperature. In case of a serious operating problem, stop using this product immediately! |
|  | Use cleaning tissue to remove the dust absorbed on the external lenses periodically to optimize light output. |
|  | Do not remove or break the warranty label, otherwise it void the warranty. |
|  | Always replace with the exact same type fuse, replacement with anything other than the specified fuse can cause fire or electric shock and damage your unit, and will void your manufactures warranty. |
|  | There are no serviceable parts in the light. Please have all servicing and adjustments made by a qualified service engineer. |

DMX Address Chart

Vesta

This chart lists the DMX dipswitch setting for DMX address 1 through 511. Follow the instructions below to configure fixture dipswitches with you desired DMX address.

DMX Address Quick Reference Chart

| | | | | | DipSwitch Position | | | | | | | | | | | | | | | |
|--------------------|----|----|----|----|--------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| DMX: DIPSWITCH SET | | | | | #9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 0=OFF | | | | | #8 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 1=ON | | | | | #7 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| X=OFF or ON | | | | | #6 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| #1 | #2 | #3 | #4 | #5 | | | | | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | | | 32 | 64 | 96 | 128 | 160 | 192 | 224 | 256 | 288 | 320 | 352 | 384 | 416 | 448 |
| 1 | 0 | 0 | 0 | 0 | | 1 | 33 | 65 | 97 | 129 | 161 | 193 | 225 | 257 | 289 | 321 | 353 | 385 | 417 | 449 |
| 0 | 1 | 0 | 0 | 0 | | 2 | 34 | 66 | 98 | 130 | 162 | 194 | 226 | 258 | 290 | 322 | 354 | 386 | 418 | 450 |
| 1 | 1 | 0 | 0 | 0 | | 3 | 35 | 67 | 99 | 131 | 163 | 195 | 227 | 259 | 291 | 323 | 355 | 387 | 419 | 451 |
| 0 | 0 | 1 | 0 | 0 | | 4 | 36 | 68 | 100 | 132 | 164 | 196 | 228 | 260 | 292 | 324 | 356 | 388 | 420 | 452 |
| 1 | 0 | 1 | 0 | 0 | | 5 | 37 | 69 | 101 | 133 | 165 | 197 | 229 | 261 | 293 | 325 | 357 | 389 | 421 | 453 |
| 0 | 1 | 1 | 0 | 0 | | 6 | 38 | 70 | 102 | 134 | 166 | 198 | 230 | 262 | 294 | 326 | 358 | 390 | 422 | 454 |
| 1 | 1 | 1 | 0 | 0 | | 7 | 39 | 71 | 103 | 135 | 167 | 199 | 231 | 263 | 295 | 327 | 359 | 391 | 423 | 455 |
| 0 | 0 | 0 | 1 | 0 | | 8 | 40 | 72 | 104 | 136 | 168 | 200 | 232 | 264 | 296 | 328 | 360 | 392 | 424 | 456 |
| 1 | 0 | 0 | 1 | 0 | | 9 | 41 | 73 | 105 | 137 | 169 | 201 | 233 | 265 | 297 | 329 | 361 | 393 | 425 | 457 |
| 0 | 1 | 0 | 1 | 0 | | 10 | 42 | 74 | 106 | 138 | 170 | 202 | 234 | 266 | 298 | 330 | 362 | 394 | 426 | 458 |
| 1 | 1 | 0 | 1 | 0 | | 11 | 43 | 75 | 107 | 139 | 171 | 203 | 235 | 267 | 299 | 331 | 363 | 395 | 427 | 459 |
| 0 | 0 | 1 | 1 | 0 | | 12 | 44 | 76 | 108 | 140 | 172 | 204 | 236 | 268 | 300 | 332 | 364 | 396 | 428 | 460 |
| 1 | 0 | 1 | 1 | 0 | | 13 | 45 | 77 | 109 | 141 | 173 | 205 | 237 | 269 | 301 | 333 | 365 | 397 | 429 | 461 |
| 0 | 1 | 1 | 1 | 0 | | 14 | 46 | 78 | 110 | 142 | 174 | 206 | 238 | 270 | 302 | 334 | 366 | 398 | 430 | 462 |
| 1 | 1 | 1 | 1 | 0 | | 15 | 47 | 79 | 111 | 143 | 175 | 207 | 239 | 271 | 303 | 335 | 367 | 399 | 431 | 463 |
| 0 | 0 | 0 | 0 | 1 | | 16 | 48 | 80 | 112 | 144 | 176 | 208 | 240 | 272 | 304 | 336 | 368 | 400 | 432 | 464 |
| 1 | 0 | 0 | 0 | 1 | | 17 | 49 | 81 | 113 | 145 | 177 | 209 | 241 | 273 | 305 | 337 | 369 | 401 | 433 | 465 |
| 0 | 1 | 0 | 0 | 1 | | 18 | 50 | 82 | 114 | 146 | 178 | 210 | 242 | 274 | 306 | 338 | 370 | 402 | 434 | 466 |
| 1 | 1 | 0 | 0 | 1 | | 19 | 51 | 83 | 115 | 147 | 179 | 211 | 243 | 275 | 307 | 339 | 371 | 403 | 435 | 467 |
| 0 | 0 | 1 | 0 | 1 | | 20 | 52 | 84 | 116 | 148 | 180 | 212 | 244 | 276 | 308 | 340 | 372 | 404 | 436 | 468 |
| 1 | 0 | 1 | 0 | 1 | | 21 | 53 | 85 | 117 | 149 | 181 | 213 | 245 | 277 | 309 | 341 | 373 | 405 | 437 | 469 |
| 0 | 1 | 1 | 0 | 1 | | 22 | 54 | 86 | 118 | 150 | 182 | 214 | 246 | 278 | 310 | 342 | 374 | 406 | 438 | 470 |
| 1 | 1 | 1 | 0 | 1 | | 23 | 55 | 87 | 119 | 151 | 183 | 215 | 247 | 279 | 311 | 343 | 375 | 407 | 439 | 471 |
| 0 | 0 | 0 | 1 | 1 | | 24 | 56 | 88 | 120 | 152 | 184 | 216 | 248 | 280 | 312 | 344 | 376 | 408 | 440 | 472 |
| 1 | 0 | 0 | 1 | 1 | | 25 | 57 | 89 | 121 | 153 | 185 | 217 | 249 | 281 | 313 | 345 | 377 | 409 | 441 | 473 |
| 0 | 1 | 0 | 1 | 1 | | 26 | 58 | 90 | 122 | 154 | 186 | 218 | 250 | 282 | 314 | 346 | 378 | 410 | 442 | 474 |
| 1 | 1 | 0 | 1 | 1 | | 27 | 59 | 91 | 123 | 155 | 187 | 219 | 251 | 283 | 315 | 347 | 379 | 411 | 443 | 475 |
| 0 | 0 | 1 | 1 | 1 | | 28 | 60 | 92 | 124 | 156 | 188 | 220 | 252 | 284 | 316 | 348 | 380 | 412 | 444 | 476 |
| 1 | 0 | 1 | 1 | 1 | | 29 | 61 | 93 | 125 | 157 | 189 | 221 | 253 | 285 | 317 | 349 | 381 | 413 | 445 | 477 |
| 0 | 1 | 1 | 1 | 1 | | 30 | 62 | 94 | 126 | 158 | 190 | 222 | 254 | 286 | 318 | 350 | 382 | 414 | 446 | 478 |
| 1 | 1 | 1 | 1 | 1 | | 31 | 63 | 95 | 127 | 159 | 191 | 223 | 255 | 287 | 319 | 351 | 383 | 415 | 447 | 479 |

DipSwitch Position

DMX Address

1. If the power supply indicator doesn't light up and the laser doesn't work, please check the power supply, the input voltage and the fuse.
2. In Stand-Alone operation, if the power supply indicator is light up and sound active indicator isn't light up, but the laser is shut off doesn't work.
 - A. Because sound is too small make for laser shut off in sound active, please increase the music volume or increase audio sensitivity with sensitivity knob, please check as below.
 - B. Please check if unit has been set up in slave mode, then set up in master mode.
3. In Master-Slave operation, slave unit don't function, please check as below.
 - A. Make sure to there's only one master in the chain, and the others are set in slave mode.
 - B. Make sure to control the unit without DMX console controlling.
 - C. Make sure to take a good quality power cable and connection.
4. In DMX mode operation, the laser is OFF and the DMX signal indicator is unlighted, please check as below.
 - A. Make sure to set up the DMX mode.
 - B. Make sure to have a good connection.
5. In DMX operation, the unit can't be controlled by the DMX console, but the DMX signal indicator is flashing, please make sure the DMX console and unit have the same channel.
6. If the unit is fail, please turn off the unit, then turn on again after 5 minutes.

Warranty Warnings:

1. Damages caused by the disregard of this user manual are not subject to Warranty. The dealer will not accept liability for any
2. Please consider that unauthorized modifications on the device are forbidden due to safety reasons. Please note that damages caused by manual modifications on the device or unauthorized operation by unqualified persons are not subject to warranty.
3. If this device will be operated in any way different to the one described in this manual, it may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns electric shock, etc.

After trying the above solution you still have a problem, please contact your dealer or our company for service.

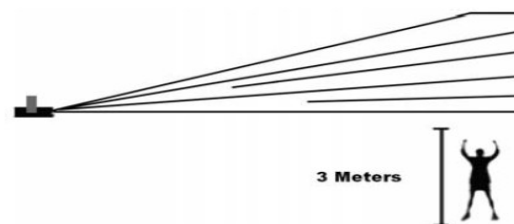
Potential laser injury hazard exists with this product! Read these Instructions carefully, which include important information about installation, safe use and service!

Caution

- * Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser radiation.
- *This laser product can potentially cause instant eye injury or blindness if laser light directly strikes the eyes.
- *It is illegal and dangerous to shine this laser into audience areas, where the audience or other personnel could get direct laser beams or bright reflections into their eyes.
- *It is a US Federal offense to shine any laser at aircraft.

NON-INTERLOCKED HOUSING WARNING

- *This unit contains high power laser devices internally. Do not open the laser housing, due to potential exposure to unsafe levels of laser radiation. The laser power levels accessible if the unit is opened can cause instant blindness, skin burns and fires.



AVOID EYE DIRECT CONTACT!

- *Laser effects projected 3 meters (9.8 ft) above the audience are eye safe. A survey should be taken to assess the likelihood of any reflective surfaces (such as high windows, chrome bars etc) bouncing stray beams back down into the audience.
- *Using a fastening clamps on the light and tight to the ceiling in a strong hook..
- *Make sure its correct power output and plug the power cable to the wall socket.
- * Power must be in earth! Power on the light.
- * Do not shoot the beams to the audience!
- *Do not look direct into the laser aperture once the laser light is ON. Please pay attention to the Laser Danger Warning Sticker!

Technical Specification

Vesta

1. Voltage: bi-voltage 110V -220V-250V AC, 50HZ-60HZ/ Fuse: 2A/250V
2. Rated Power: 50W
3. Scanner: **25Kpss** scanning speed, High-speed optical scanner, big angle scanning
4. Laser:

| | | |
|--------------|------------|--------------|
| Color | Wavelength | Power output |
| Red | 650nm | 500mW |
| Green | 532nm | 200mW |
| Blue | 450nm | 300mW |
| Mixed white: | 1000mW | |
5. Laser class: **Class IV**
5. Working Modes: Sound Active, AUTO-Beam, AUTO-Animation, DMX512 (12 CH), Master/Slave, PC Control
6. Graphics & Effects: 128 beam show and animated graphics show patterns
7. Interface: 3 pins XLR jack for DMX or Maser-Slave linking
DB25/M ILDA computer interface for PC control
8. Size: 600*470*290mm
9. Weight: 6.5Kg

Features

Vesta

1. RGB full-color animation laser with high-speed optical scanner to create animated graphics,128 beam show and graphics show patterns, and with the function of unique blanking, frequently flashing, rotating, moving, rotation, split, zoom, drawing, speed and color etc.
2. Includes six working modes as DMX512, Sound Active, AUTO-Animation, AUTO-Beam, Master/Slave and PC control(with DB25 ILDA computer interface) for different applications.
3. The unit has fourteen channels to control in DMX mode. The unit has BLACK OUT function. The uint will shut off if no DMX512 signal.
4. Compatible ILDA laser show software with ILDA interface. Use electronic switches to conversion full ILDA signal. The uint will shut off if no ILDA signal.
5. Design according to security and good performance, safer to human and environment. Master/Slave mode, DMX512 mode and PC Control mode, will shut off laser automatically without trigger signal.

DMX Control

The system only accepts the DMX512 signal of international standard to control the system.

DMX Control Parameter Chart

| Channel | Function | Value | Description |
|---------|----------------|---------|--|
| CH1 | Mode | 0~49 | Sound Active mode |
| | | 50~99 | Auto-Beam mode |
| | | 100~149 | Auto-Animation mode |
| | | 150~199 | Manual mode to Auto run |
| | | 200~255 | Manual mode to Sound Active run |
| CH2 | Dimmer | 0~255 | Closed-W-R-Y-G-B-P-fixed color -random single color-random seven-color -moving seven-color-fixed color |
| CH3 | Pattern Select | 0~255 | 128 pattrens |
| CH4 | Moving-Y | 0~127 | Manual to up to down moving |
| | | 128~191 | Auto to down moving |
| | | 192~255 | Auto to up moving |
| CH5 | Moving-X | 0~127 | Manual to left to right moving |
| | | 128~191 | Auto to right moving |
| | | 192~255 | Auto to left moving |
| CH6 | Rolling-X | 0~127 | Manual rolling |
| | | 128~255 | Auto rolling |
| CH7 | Rolling-Y | 0~127 | Manual rolling |
| | | 128~255 | Auto rolling |
| CH8 | Rotation | 0~127 | Manual rotation |
| | | 128~191 | Auto clockwise rotation |
| | | 192~255 | Auto counter clockwise rotation |
| CH9 | Zoom(+/-) | 0~85 | Auto zoom(+) |
| | | 86~170 | Auto zoom(-) |
| | | 171~255 | Manual zoom(+/-) |
| CH10 | Pattern Size | 0~255 | 0 is Moderate, 1 is small, 255 is big |
| CH11 | Display Dot | 0~255 | 0 is display dot, 255 is best brightness |
| CH12 | Drawing | 0~127 | Auto drawing mode 1 |
| | | 128~255 | Auto drawing mode 2 |

DMX Control

The system only accepts the DMX512 signal of international standard to control the system mode, the laser beam ON /OFF, running direction, running speed and twinkle speed etc.

Function setting

If it is set to ILDA mode (use PC software to control laser light), just need to connect ILDA signal to DB25 jack. If set to Built-in program, then ILDA signal cannot be connected, setting dipswitches directly is ok. ILDA mode (PC control) and Built-in program mode can be identified and transisted automatically.

0=OFF 1=ON X=OFF or ON

| DIPSWITCH CHART | | | | | | | | | | FUNCTION | |
|-----------------|----|----|----|----|----|----|----|----|-----|----------------|----------|
| #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | | |
| 0 | 0 | 0 | X | X | X | X | X | X | 0 | SOUND ACTIVE | |
| 1 | 0 | 0 | X | X | X | X | X | X | 0 | AUTO-BEAM | |
| 1 | 1 | 0 | X | X | X | X | X | X | 0 | AUTO-ANIMATION | |
| 0 | 0 | 1 | X | X | X | X | X | X | 0 | SLAVE MODE | |
| SET DMX ADDRESS | | | | | | | | | | 1 | DMX MODE |

Built-In Program Function Chart

DMX address calculation

For DMX mode, DMX address from #1 to 9# dipswitches must be set, the address is set from 1 to 511. Each dipswitch represents a binary value.

| Dipswitch | Value | Dipswitch | Value |
|-----------|-------|-----------|-----------------|
| # 1 | 1 | # 6 | 32 |
| # 2 | 2 | # 7 | 64 |
| # 3 | 4 | # 8 | 128 |
| # 4 | 8 | # 9 | 256 |
| # 5 | 16 | # 10 | DMX, Set to "0" |

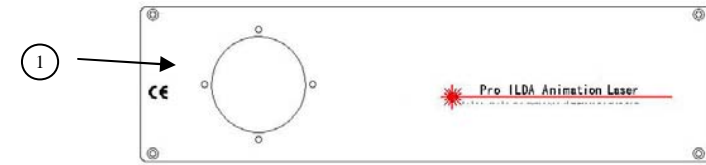
One unit has 5 channels, so each unit must be assigns 5 channels at least. We may assign 8 channels for one unit, then DMX address = $8 * N + 1$, $N=0, 1, 2, 3 \dots$ Example, One loop address=1, two loop address=9, three loop address=17, four loop address=25

| Loop | Address | Binary | Dipswitches |
|------|---------|-----------|-------------|
| 1 | 1 | 100000000 | # 1 |
| 2 | 9 | 100100000 | # 1+#4 |
| 3 | 17 | 100010000 | # 1+#5 |
| 4 | 25 | 100110000 | # 1+#4+#5 |

The dipswitches setting for DMX address see the " DMX Address Quick Reference Chart ".

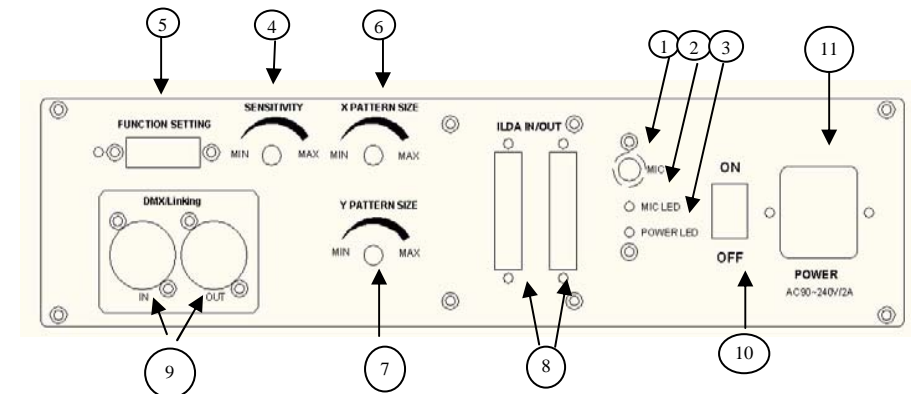
Front/Rear Panel

Vesta



Front Panel Figure

1. Laser aperture



Rear Panel Figure

1. Sound active microphone
2. Sound active indicator:Blue
3. Power indicator:Red
4. Audio sensitivity knob
5. Function of built-in program setting dipswitches
6. X Pattern size knob
7. Y Pattern size knob
8. ILDA IN/OUT interface with DB25 jack
9. DMX or linking jack
10. Power switch ON/OFF
11. Power jack

Function & Setting

Vesta

Sound Active

The change of the laser pattern is controlled by sound, that is, the rhythm of the sound control the effect of the changing laser pattern. Turning the sensitivity knob in the clockwise direction to increase the fixture's sensitivity to sound, the knob in the counter clockwise direction to decrease. The laser diode will automatically turn off after 8 seconds when the music stops.

AUTO

Auto cycles the built-in programs without being controlled externally. It has no laser OFF.

The mode allows a single unit to react to the beat of the music in the master mode.

1. Install the units in a suitable position (laying or appending).
2. Set dipswitch to select Sound Active or AUTO mode.
3. Turn on the unit power, the unit begins reset, then the unit begins working.
4. The unit will react to the low frequencies of music via the internal microphone.

Adjust the audio sensitivity knob on the back of the unit to make the unit more or less sensitive in sound active. The panel has LED indicating for sound active.

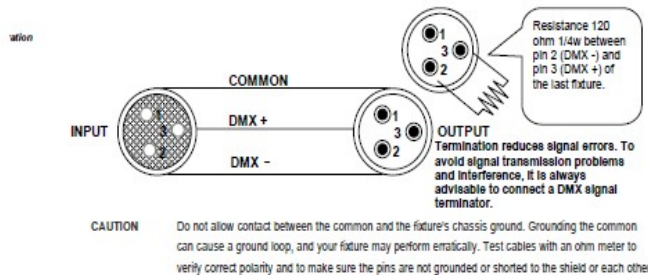
Master-Slave Operation

This mode will allow you to link up to 32 units together without controller.

1. Install the units in a suitable position (laying or appending).
2. Choose a unit to function as Master mode, set dipswitch to select Sound Active or AUTO mode. The others must be set to Slave mode, set dipswitch to select Slave mode.
3. Use standard XLR microphone cable chain your units together via the XLR connector on the rear of the units. For longer cable runs we suggest a terminator at the last fixture.

CABLE CONNECTORS

Cabling must have a male XLR connector on one end and a female XLR connector on the other end.



4. Turn on the all units' power, the units begins reset, then the unit begins working.

The slave units will react the same as the master unit.

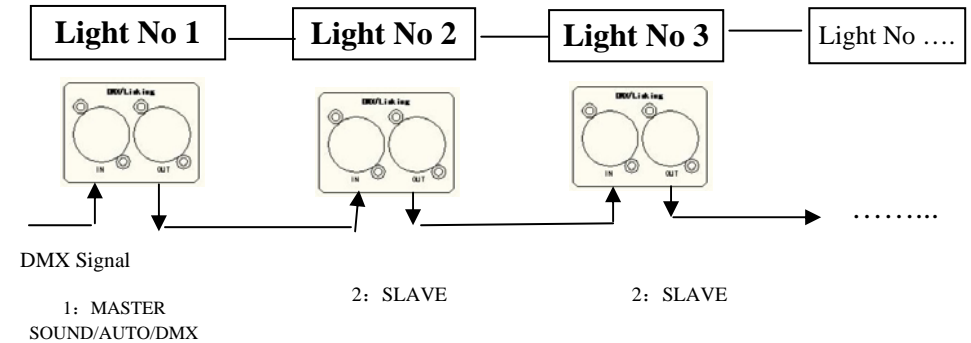
5. The units will react to the low frequencies of music via the internal microphone.

Adjust the audio sensitivity knob on the back of the master unit to make the unit more or less sensitive in sound active. The panel has LED indicating for sound active.

Universal DMX Operation (DMX mode)

This mode allows you to use universal DMX-512 console to operate.

1. Install the units in a suitable position (laying or appending).
2. Use standard XLR microphone cable chain your units together via the XLR connector on the rear of the units. For longer cable runs we suggest a terminator at the last fixture.
3. Assign a DMX address to each the unit using dipswitches, see the "DMX Address Quick Reference Char".



4. Turn on the all units' power, the units begins reset, then the unit begins working.
5. Use DMX console to control your units.

Notes:

1. DMX console can not be used in Master-Slave operation (Sound Active or AUTO mode).
2. There should be only one master unit in Master-Slave operation.

PC Control Operation

This mode allows you to use PC software(for example: Pangolin, Phenix, Mamba) to operate.

If no IDLA signal to DB25 jack in ILDA mode, the laser and scanner will is closed for protection. The scan speed of software coltrol must be less than **25000 PPS**, otherwise, the patterns possible have distortion, or the scanner is protected possibly by built-in circuitry.

